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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,785	08/08/2001	Pardeep Kohli	29981.15	5759

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EXAMINER	
AMINZAY, SHAIMA Q	
ART UNIT	**PAPER NUMBER**
2684	

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/924,785	KOHLI ET AL.	
	Examiner	Art Unit	
	Shaima Q. Aminzay	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 July 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

1. This is the first action, application filed on 07/20/2001.

2. Independent Claim 1, 9, 11, 18, and dependent claims 2-8, 10, 12-17, and 19-20 are pending in the case.

3. The present title of the application is "Method and System for Supporting Wireless Network Services in a Network Through Another Network having a Different Technology"

NONE FINAL ACTION

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) Patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kulkarni et al. U. S. Patent 5862481, and in view of Gallagher et al. U. S. Patent 5933784.

6. Regarding claim 1, Kulkarni teaches a system (Figure 4, and 9) for supporting a wireless network service provided to a mobile station (MS) in a first network by a second network (see for example, column 1, lines 4-6, and column 3, lines 18-21), the first (see for example, Figure 4, GSM) and second (see for example,

Figure , IS-41) networks having two incompatible network technologies (see for example, column 4, lines 35-37, the GSM and IS-41 are the two incompatible networks), and the MSC communicating with the MS for providing a wireless communication service (see for example, Figure 4, and column 1, lines 7-15), and the wireless communication service working with the wireless network service (see for example, column 2, lines 1-8), and a service management subsystem for the wireless network service in the second network (see for example, column 3, lines 58-69), wherein the wireless communication service initiated within the first network is controlled by the service management subsystem (see for example, column 3, lines 54-58), and the WS in the second network (see for example, column 3, lines 58-60), and wherein the first and second network share the service management subsystem for supporting the wireless network service regardless the incompatibility of the corresponding network technologies (see for example, lines 48-64).

However, Kulkarni does not teaches, the wireless media gateway (WMG) implemented in the first network connected to at least one mobile switching center (MSC) of the first network, and a wireless switch device (WS) implemented in the second network connected to the at least one MSC in the first network.

Gallagher teaches the wireless media gateway (Figures 2, element 206) connected in the first network to at least one mobile switching center (MSC 106) of the first network (see for example, Figure 2, IS-41B), and a wireless switch

device (HLR, 204) of the second network (DCS1900 (GSM) home system) connected to the at least one MSC (106) in the first network through signaling network (108).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Gallagher's system and method for enabling two or more different and incompatible wireless networks to communicate with each other (see for example (Gallagher), column 1, lines 16-19, and column 3, lines 36-42) with Kulkarni's system and method for wireless translator and router request between two networks (Figures 2, and 9, GSM and IS-41) having different protocols to provide a method and system for supporting wireless networks services in networks with having different technology, and to provide mobile customers with more flexibility and accessibility of reaching other networks that are not local (Kulkami, column 3, lines 35-42).

7. Regarding claims 9, and 10, Kulkarni teaches a system for supporting a wireless network service provided to a mobile station (MS) in a first network having a first network technology (see for example, Figure 9, IS-41 network; and Figure 4, GSM) by a second network having a second network technology (see for example, Figure 9, GSM network; and Figure 4, IS-41), the first and second network technologies being incompatible to each other (see for example, column 4, lines 35-37, the GSM and IS-41 are the two incompatible networks), and a service management subsystem connected to the MSC in the second network (see for example, column 3, lines 58-69), wherein the service management

subsystem provides control information to the MSC in the first network (MSC/HLR) through the MSC in the second network (MSC/VLR) for managing the wireless network service initiated within the first network (see for example, lines 48-64). and wherein the first and second network share the service management subsystem for supporting the wireless network service regardless the incompatibility of the first and second network technologies (see for example, lines 48-64).

However, Kulkarni does not teaches an interface device implemented in at least one mobile switching center (MSC) of the second network enabling the MSC in the second network to communicate with at least one MSC in the first network.

Gallagher teaches the wireless media gateway (Figures 2, element 206) connected in the first network to at least one mobile switching center (MSC 106) of the first network (see for example, Figure 2, IS-41B), and a wireless switch device (HLR, 204) of the second network (DCS1900 (GSM) home system) connected to the at least one MSC (106) in the first network through signaling network (108).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Gallagher's system and method for enabling two or more different and incompatible wireless networks to communicate with each other (see for example (Gallagher), column 1, lines 16-19, and column 3, lines 36-42) with Kulkarni's system and method for wireless translator and router

request between two networks (Figures 2, and 9, GSM and IS-41) having different protocols to provide a method and system for supporting wireless networks services in networks with having different technology, and to provide mobile customers with more flexibility and accessibility of reaching other networks that are not local (Kulkami, column 3, lines 35-42).

8. Regarding claims 11, and 4, Kulkarni teaches a method for migrating a control of a wireless communication service provided to a mobile station (MS) in a first network depending on a first network technology (see for example, Figure 4, GSM network) to a second network depending on a second network technology (see for example, Figure 4, IS-41 network; and column 5, lines 23-24, and column 9, lines 1-3), and receiving a request for the wireless communication service in the first network by a mobile switch center (see for example, Figure 4, MSC in GSM network, column 5, lines 15-23); obtaining an instruction to grant or deny the wireless communication service from a first control device in the second network (see for example, column 8, lines 24-30), the first control device providing the instruction based on its communication to a service management subsystem for the control of the wireless communication service (see for example, column 8, lines 19-24); if the wireless communication service is granted (see for example, column 8, lines 25-27), a second control device in the first network controlled by the first control device allowing the MS to execute the wireless communication service with a receiver (see for example, Figure 4, column 8, lines 25-27), and if the wireless communication service is denied (see

for example, Figure 4, column 8, lines 27-28), the second control device in the first network controlled by the first control device prohibiting the MS to execute the wireless communication service with the receiver (see for example, column 8, lines 19-30), and wherein the first network thus maintains the control of the wireless communication service through the service management subsystem connected to the second network without implementing additional service management subsystem (see for example, column 3, lines 49-57).

However, Kulkarni does not teaches the first and second control devices communicate with each other using a predetermined protocol independent of the network technology used by either the first and the second network,

Gallagher teaches the first and second control devices communicate with each other using a predetermined protocol independent of the network technology used by either the first and the second network (see for example, column 5, lines 12-13 (SS7 Signaling Network 108), and lines 25-41, the gateway 202,and unit 206).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Gallagher's system and method for enabling two or more different and incompatible wireless networks to communicate with each other (see for example (Gallagher), column 1, lines 16-19, and column 3, lines 36-42) with Kulkarni's system and method for wireless translator and router request between two networks (Figures 2, and 9, GSM and IS-41) having different protocols to provide a method and system for supporting wireless

networks services in networks with having different technology, and to provide mobile customers with more flexibility and accessibility of reaching other networks that are not local (Kulkami, column 3, lines 35-42).

9. Regarding claims 18, 12, and 13, Kulkarni teaches a system for migrating a control of a wireless communication service provided to a mobile station (MS) in a network depending on a first network technology first (see for example, Figure 9, IS-41 network; and Figure 4, GSM) to a second network depending on a second network technology (see for example, Figure 9, GSM network; and Figure 4, IS-41), a first control device in the second network for providing an instruction to grant or deny a request for the wireless communication service in the first network by a mobile switch center (see for example, Figure 4, column 8, lines 24-30); a service management subsystem for communicating with the first control device providing information pertaining to the MS for the control of the wireless communication service (see for example, Figure 4, column 3, lines 52-54), and a second control device in the first network controlled by the first control device for allowing the MS to execute the wireless communication service with a receiver if the wireless communication service is granted or for prohibiting the MS to execute the wireless communication service with the receiver if the wireless communication service is denied (see for example, Figure 4, column 8, lines 27-28, and lines 19-24), and wherein the first network thus maintains the control of the wireless communication service through the service management subsystem connected to the second network without implementing additional service

management subsystem (see for example, column 3, lines 49-57).

However, Kulkarni does not teaches the first and second control devices communicate with each other using a predetermined protocol independent of the network technology used by either the first and the second network,

Gallagher teaches the first and second control devices communicate with each other using a predetermined protocol independent of the network technology used by either the first and the second network (see for example, column 5, lines 12-13 (SS7 Signaling Network 108), and lines 25-41, the gateway 202,and unit 206).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Gallagher's system and method for enabling two or more different and incompatible wireless networks to communicate with each other (see for example (Gallagher), column 1, lines 16-19, and column 3, lines 36-42) with Kulkarni's system and method for wireless translator and router request between two networks (Figures 2, and 9, GSM and IS-41) having different protocols to provide a method and system for supporting wireless networks services in networks with having different technology, and to provide mobile customers with more flexibility and accessibility of reaching other networks that are not local (Kulkami, column 3, lines 35-42).

10. Regarding claim 2, Kulkarni and Gallagher teach claim 1, and further Gallagher teaches the WS (see for example, Figure 2, SS7 Network) controls the

operation of the WMG for providing the wireless communication service (Figure 2, element 206, and gateway 202).

11. Regarding claims 19, and 20, Kulkarni and Gallagher teach claim 18.

Gallagher does not teaches the service management subsystem is a billing subsystem for monitoring a credit account of the MS, and the first and second control device informs the MS if there is not enough credit in the billing subsystem to support the wireless communication service.

However, Kulkarni teaches the authentication process against fraud in the first (AUC) and second (AC) networks control device (see for example, column 6, lines 17-40), and further, the invention is not limited to the authentication process (column 11, lines 65-68; using the authentication process and the "CallHistoryCount" (column 6, lines 19-26) can be used to modified the system to include credit account or billing process).

12. Regarding claim 3, Kulkarni and Gallagher teach claim 1, and further Gallagher teaches the WMG (Figure 2, 202) further connects to a receiver which communicates with the MS if the wireless communication service is granted (see for example, column 5, lines 29-32).

13. Regarding claims 5, and 15, Kulkarni and Gallagher teach claims 1, 11, and further Gallagher teaches the WS further connects to at least one additional WMG situated in at least one additional network having its network technology as the first network such that the wireless network service is applicable to users of the at least one additional network (see for example, column 5, lines 32-38).

14. Regarding claims 6, Kulkarni and Gallagher teach claim 1, and further Gallagher teaches the WS communicates with the service management subsystem through a signaling control point. (see for example, Figure 2, SS7 signaling Network).

15. Regarding claims 7, and 16, Kulkarni and Gallagher teach claims 1, 11, and further Gallagher teaches the wireless communication service is a voice service (see for example, column 1, lines 43-47; column 10, lines 59-65).

16. Regarding claims 8, and 17, Kulkarni and Gallagher teach claims 1, 11, and further Gallagher teaches wherein the wireless communication service is a data service (see for example, column 5, lines 42-50, and column 6, lines 4-7).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure
2. Park et al., Method and System for Using SIM Card in CDMA Service Area
3. Lamb et al., Method and System for Providing Telecommunication Services Across Networks That Use Different Protocols.

Inquiry

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaima Q. Aminzay whose telephone number is 703-305-8723. The examiner can normally be reached on 7:00 AM -5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service telephone number is 703-305-3900.

NAY MAUNG
SUPERVISORY PATENT EXAMINER

Shaima Q. Aminzay
(Examiner)

Nay Maung
(SPE)
Art Unit 2684

April 13, 2004